

Fig. 11. Embryo of the same age as fig. 8, turned round and much compressed, so as to exhibit the anterior whip of cilia and the large aperture behind the vibratile ring,  $\times 350$  diams.

Fig. 12. One of the same age, in which compression has forced out the ciliated proboscis,  $\times 350$  diams.

XII.—*Descriptions of five new Species of Birds from Queensland, Australia; and a new Humming-bird from the Bahamas.* By JOHN GOULD, F.R.S. &c.

*Eopsaltria leucura*, Gould, n. sp.

Forehead, lores, and a line nearly surrounding the eye and the ear-coverts black; head and upper surface dark leaden grey, fringed posteriorly with greyish white; wings blackish brown, darkest on the shoulders; upper tail-coverts black; two centre tail-feathers black; the next on each side black, with a stripe of white on the basal part of the shaft and outer web; the remaining four on each side white at the base, and black for the remainder of their length; all the under surface and the under tail-coverts white, with the exception of a broad band of pale grey across the breast; bill and feet black.

Total length  $6\frac{1}{2}$  inches, bill  $\frac{13}{16}$ , wing  $3\frac{1}{4}$ , tail 3, tarsi 1.

*Habitat.* The Cape-York district.

*Remark.* This is the largest species of the genus yet discovered; it is somewhat allied to the *Eopsaltria leucogaster* of Western Australia, but is distinguished from that and every other known species by the white at the basal portion of the lateral tail-feathers.

I have for a long time entertained a belief that there is yet another undescribed species of *Eopsaltria* inhabiting Queensland and the eastern portion of New South Wales—in other words, or to make the matter more clear, that there are three yellow-bellied species resident in the southern and eastern portions of Australia. If this opinion be correct, I have committed the error of figuring the undescribed one in my folio work on the birds of that country under the erroneous specific appellation of *australis*.

The three species may be thus defined:—

*Eopsaltria australis*.

Crown of the head, nape, and ear-coverts grey; rump dull wax-yellow; chin greyish white; under surface bright yellow.

Syn. *Muscicapa australis*, Lath. Ind. Orn. Suppl. p. li.

*Southern Motacilla*, *Motacilla australis*, White's Journ. pl. at p. 239.

*Eopsaltria chrysorrhos*, Gould, n. sp.

This bird is rather larger than *E. australis*, and is similar in colour, except that the rump as well as the breast is of a beautiful jonquil-yellow.

*Habitat.* The eastern part of New South Wales and the southern portion of Queensland. The validity of this species depends upon whether the two sexes are alike in having the rump of a jonquil-yellow, and on the male and female of *E. australis* having the same part dull wax-yellow.

Syn. *Eopsaltria australis*, Gould, Birds of Australia, vol. iii. pl. 11.

*Eopsaltria magnirostris*, Ramsay.

Like the last in colour, but having a conspicuously larger bill and shorter wings.

*Habitat.* Rockingham Bay, Queensland.

*Ptilotis Cockerelli*, Gould, n. sp.

*Male.* Fore part of the head grey, merging into the brown of the upper surface, which has a mottled appearance, owing to each feather being of a darker hue in the centre; lesser wing-coverts dark brown, with a spot of dull white at the tip of each, forming a spotted band across the shoulder; greater coverts and primaries dark brown margined with wax-yellow; tail brown, the lateral feathers margined externally at the base with wax-yellow; ear-coverts silvery, with a few of the anterior feathers pale yellow, and a posterior tuft of rich gamboge-yellow; throat and breast clothed with narrow lanceolate white feathers, a few on the sides of the chest tinged with deep yellow; abdomen dull greyish white, changing to a creamy tint towards the vent; bill black; feet horn-colour.

*Female.* In colouring differs only in the spots at the tips of the lesser wing-coverts being nearly obsolete, but, as is the case with many other species of the family, is much smaller than the male, as will be seen by the following admeasurements:—

*Male.* Total length 5 inches, bill 1, wing  $3\frac{1}{8}$ , tail  $2\frac{3}{4}$ , tarsi  $\frac{3}{4}$ .

*Female.* " 4 " "  $\frac{3}{4}$  "  $2\frac{3}{4}$  "  $2\frac{1}{2}$  "  $\frac{5}{8}$

*Habitat.* The little-explored districts of the Cape-York peninsula, where it was shot by Mr. Cockerell, after whom I have named it.

*Remark.* Although I have placed this beautiful new species in the genus *Ptilotis*, I am by no means certain that I am correct in so doing; for the bird possesses characters which ally it to at least three genera, namely, *Stigmatops*, *Meliphaga*,

and *Ptilotis*, while it also possesses characters peculiar to itself of almost sufficient importance to demand a distinct generic appellation. It somewhat resembles in its colouring the *Ptilotis polygramma* of Mr. G. R. Gray (*vide* Proc. Zool. Soc. 1861, pp. 429, 434).

*Sittella striata*, Gould, n. sp.

*Male.* The whole of the head, neck, throat, and breast black; all the upper surface pale-brown, with a blackish-brown stripe down the centre of each feather; under surface striated in a similar manner, but the streaks are narrower, not so dark, and the edges of the feathers are also lighter, and on the centre of the abdomen are nearly pure white; primaries black, with a large spot of white near their base, and faintly tipped with brown; secondaries dark brown margined with pale brown; upper tail-coverts white; under tail-coverts white, with a large tear-shaped spot of dark brown in the centre of each; tail black, the lateral feathers tipped with white, increasing in extent as the feathers recede from the centre; circle round the eye, base of the bill, and the legs and feet yellow; tip of the bill black.

Total length 4 inches, bill  $\frac{5}{8}$ , wing 3, tail  $1\frac{1}{4}$ , tarsi  $\frac{5}{8}$ .

*Female.* Differs in having the crown and nape only black, and in the striation of the under surface extending from the bill to the vent.

*Habitat.* The Cape-York peninsula.

*Remark.* So far as I am aware, no member of this genus has been found out of Australia; but one or other of the many species known are distributed over all parts of that great country.

The nearest ally of the bird above described is the *Sittella leucocephala* of the Moreton-Bay district, to the north of which country nature has completely rung the changes by colouring the head and neck of the present bird black, instead of white, as in the species mentioned. The sexes of this new species are very different, the female (or what is supposed to be an example of that sex) having the crown of the head only black, while the upper and under surface is streaked as in the male.

*Gallinula ruficrissa*, Gould, n. sp.

Head, all the upper surface, wings, and tail brownish olive; sides of the face, neck, breast, and under surface deep olive-grey; lower part of the flanks, vent, and under tail-coverts pale rusty red; bill greenish yellow, with a mark of red on the base of the culmen; legs and feet greenish yellow.

Total length 10 inches, bill  $1\frac{5}{8}$ , wing 6, tail  $2\frac{1}{2}$ , tarsi  $2\frac{1}{2}$ , bare space above the tarsal joint  $1\frac{1}{8}$ , middle toe and nail  $2\frac{1}{4}$ .

*Habitat.* Cape River, Queensland.

*Remark.* This bird appears to be most nearly allied to the *Gallinula olivacea* of Meyen (*vide* Nov. Acta, 1834, p. 109, tab. 20); but that species is of larger size, and has legs still more disproportionate to the size of its body. The white-breasted Indian Gallinule (*G. phœnicura* of Pennant) and the *Gallinula akool* of the same country are, in my opinion, also nearly allied to it.

Prof. Reichenbach has instituted the genus *Amaurornis* for the reception of *Gallinula olivacea*, with which the late Prince Bonaparte associates the *G. femoralis* of Tschudi. It is for ornithologists to decide upon the propriety of this subdivision.

### Family Trochilidæ.

Having lately received, through the kindness of His Excellency Sir James Walker, Governor of the Bahama Islands, four specimens of a Humming-bird, of which for the last twenty years I have been anxious to procure examples, I feel convinced that, as I had for some time supposed from a conversation I had with the late Dr. Bryant, two species of this lovely family of birds inhabit those islands; and this conviction is strengthened by the circumstance that when in England, just prior to his lamented death, he informed me that the humming-bird of the southern islands was supposed to be distinct from that killed in the neighbourhood of Nassau. He at the same time promised that I should have any examples that he could spare from his collection—a promise which has been partly performed either by Mrs. Bryant or her husband's executors sending me, through Mr. G. N. Lawrence, of New York, a male, which I find is different from those sent me by Sir James Walker. As the birds killed round Nassau are identical with the type of the genus *Doricha* (*D. Evelynæ*), which is still in the Loddigesian collection, the southern bird requires a specific appellation; and it would have given me great pleasure to name it after its discoverer, had not another species of the same section of the Trochilidæ been named *Bryantæ* by Mr. Lawrence.

The new bird, which is probably from Long Island, possesses some peculiarly interesting specific characters. I say from Long Island, because, on reference to the chart consulted by Dr. Bryant and myself during his last visit to my house, I find that is the locality marked as being the place in which he procured some of his specimens.

In size the new species, which I propose to call *Doricha*

*lyrura*, is about the same as *D. Evelyneæ*; but the tail is distinctly forked, and its outer feathers are much longer, narrower, and outcurved at the apex, while the remainder regularly graduate towards the two central ones, which are very short. When the tail is raised and the feathers partially spread, they assume a lyre-like appearance, and hence the specific appellation. Not wishing to depend upon my own judgment alone, I submitted this bird to the inspection of Mr. Salvin, who, after a careful examination, came to the same conclusion as myself, that the bird is distinct, and that the form of the feathers just described is the natural one. All my Nassau specimens, as well as others I have seen from that district, have the beautiful luminous lilaceous feathers confined to the throat, while in the specimen sent to me through Mr. Lawrence, the whole face is luminous, the metallic lilaceous colour extending across the forehead.

*Doricha lyrura*, Gould, n. sp.

Forehead, throat, and breast beautiful shining lilac bordered with blue, the two colours blending at their juncture; immediately below the gorget a band of greyish white, remainder of the abdomen bronzy brown; axillæ rusty red; wings purplish brown; upper surface golden green; the narrow outer tail-feather on each side black, the two next black on the outer web, chestnut-red on the inner one, the next blackish brown with green reflections; the two middle ones green.

Total length  $3\frac{5}{8}$  inches, bill  $\frac{7}{16}$ , wing  $1\frac{1}{2}$ , tail  $1\frac{7}{8}$ .

XIII.—*On the Depths of the Sea*. By Prof. WYVILLE THOMSON, LL.D., F.R.S.\*

In the year 1864, and in succeeding years, G. O. Sars, a distinguished son of the veteran and very distinguished Professor of Zoology in the University of Christiania, was employed as a Commissioner of Fisheries in the service of the Swedish Government; and in his official capacity he had an opportunity of dredging in deep water (300 fathoms) off the Lofoden Islands, within the arctic circle. Instead of finding the bottom of the sea barren at these great depths, as many circumstances had led many of our most able naturalists to anticipate, he brought up a multitude of animal forms, all of them of the

\* Communicated by the author, being the substance of a lecture delivered, on the 10th of April, 1869, in the theatre of the Royal Dublin Society.